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EXAMINER	
WOZNIAK, JAMES S	

ART UNIT	PAPER NUMBER
2655	2

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/898,282	PRINTZ ET AL.	
	Examiner	Art Unit	
	James S. Wozniak	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 July 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *7/03/2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

Detailed Action

Drawings

1. The drawings are objected to because:

- In Fig. 1, there are no labels for Elements: 100, 106, 110, 112, 114, 118, and 120.
- In Fig. 2, there is no label for Element 102.
- In Fig. 3, there is no label for Element 300.

Labels should be added for the above elements to provide for a clearer drawing representation.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," "The inventive arrangements can include," etc.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-4, 12, 13, and 18** are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent: 6,230,138 to Everhart.

With respect to **Claim 1**, Everhart discloses:

A speech processing board comprising: multiple processor modules (multiple processors located throughout the vehicle, Col. 2, Lines 40-43), each said processor module having an associated local memory (voice control system (VCS) memory, Col. 4, Lines 21-23), each said processor module hosting at least one instance of a speech application task (Col. 2, Lines 7-9);

A storage system for storing speech task data, said speech task data comprising language models and finite state grammars (VCS memory for storing grammar sets, Col. 4, Lines 21-23);

A local communications bus communicatively linking each said processor module through which each said processor module can exchange speech task data with said storage system (vehicle network bus, Col. 3, Lines 54-58); and

A communications bridge (I/O module, Col. 3, Lines 41-45) to a host system (VCS as a part of a central control unit that acts as a host system, Col. 3, Lines 21-25), said communications bridge providing an interface to said local communications bus through which

data can be exchanged between said processor modules and said host system *(I/O module allowing the communication of data, Col. 3, Lines 44-46)*.

With respect to **Claim 2**, Everhart shows:

The speech processing board of claim 1, wherein each said processor module comprises: a central processing unit (CPU) core having at least one memory cache which can be accessed by said CPU core; a processor bridge communicatively linking said CPU core to said local communications bus (voice control system module featuring a speech processor containing a memory connected to a network bus, Col. 3, Lines 51-58); and

A memory controller through which said CPU core can access said local memory, said memory controller linked to said CPU core through a processor local bus *(main memory, Fig. 3, Element 50, is controlled by the main processor, Fig 3, Element 48)*.

With respect to **Claim 3**, Everhart discloses:

The speech processing board of claim 2, further comprising a language model cache disposed in said local memory *(modeling block within the speech processor that applies a language model to an input speech signal, Col. 5, Lines 8-11)*.

With respect to **Claim 4**, Everhart recites:

The speech processing board of claim 2, further comprising a finite state grammar table disposed in said local memory *(VCS memory for storing grammar sets, Col. 4, Lines 21-23)*.

With respect to **Claim 12**, Everhart shows:

The speech processing board of claim 1, further comprising a serial audio channel communicatively linking said processor modules to said communications bridge, said serial audio channel providing a medium upon which audio data can be exchanged between individual

processor modules and said communications bridge *(I/O module allowing the communication of data and a speech processor that matches an associated command with a particular speech engine Col. 5, Lines 49-59, in combination with the network bus as recited in Claim 1 and as shown in Fig 3).*

With respect to **Claim 13**, Everhart discloses:

The speech processing board of claim 12, further comprising an audio stream processor coupled to said communications bridge, said audio stream processor configured to extract audio information received in said communications bridge, store said extracted audio information and distribute said audio information over said serial audio channel to selected ones of said processor modules based on hosted instances of speech applications in each said processor module *(plurality of speech engines (part of the main speech processor) with different recognition parameters coupled with a selector capable of recognizing an audio input signal as being associated with a particular speech engine. The selector further routes the input audio signal to the selected speech engine so as to produce a desired speech activated vehicle function, Col. 2, Lines 7-14, in combination with the voice control module as applied to Claim 1).*

With respect to **Claim 18**, Everhart recites:

A high-volume speech processing method comprising the steps of: loading and executing a plurality of speech application tasks in selected ones of multiple processor modules in a speech processing board (multiple processors located throughout the vehicle, Col. 2, Lines 40-43);

Loading in a commonly addressed storage separate from said multiple processor modules selected language models for use by said speech application tasks *(VCS memory for storing grammar sets, Col. 4, Lines 21-23)*;

Receiving audio data over an audio channel and distributing said audio data to particular ones of said processor modules, wherein said distribution of said audio data to particular ones of said processor modules is determined based upon a speech application tasks executing in said particular ones of said processor modules module *(plurality of speech engines (part of the main speech processor) with different recognition parameters coupled with a selector capable of recognizing an audio input signal as being associated with a particular speech engine. The selector further routes the input audio signal to the selected speech engine so as to produce a desired speech activated function, Col. 2, Lines 7-14, in combination with the voice control module as applied to Claim 1)*;

Processing said received audio data in said particular ones of said processor modules using said language models selected for use by said speech application tasks *(VCS memory for storing grammar sets, Col. 4, Lines 21-23)*; and

Caching in said selected ones of said multiple processor modules portions of said selected language models used by said speech application tasks *(selector memory, Col. 6, Lines 13-15)*.

Thus, Everhart anticipates the disclosed invention as recited in Claims 1-4, 12, 13, and 18.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 5-10, 14, 15, 17, and 19-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Everhart in view of U.S. Patent: 6,539,087 to Walsh et al.

Everhart teaches the apparatus and method for controlling a speech recognition system as applied to Claims 1-4, 12, 13, and 18, but does not teach:

- A boot memory as recited in Claim 5
- A PCI communication bus as recited in Claim 6
- A 64-bit, 133MHz PCI communication bus as recited in Claim 7
- A 64-bit, 66MHz PCI communication bus as recited in Claim 8
- A PCI interface to a H.1x0 bus as recited in Claim 9
- A PCI interface to a H.1x0 bus and the ability to manage message communications between the processing board and host system as recited in Claim 10
- An Ethernet switch as recited in Claim 14
- A CT media services system as recited in Claims 15, 19, and 21
- A PCI-to-PCI bridge, CT host system, drive controller, and boot memory as recited in Claim 17

- A computer program for processing speech as recited in Claim 20

With respect to **Claim 5**, Walsh recites:

A boot memory storing initialization code, said boot memory communicatively linked to said processor modules through said communications bridge, each said processor module accessing said boot memory during an initial power-on sequence *(RAM and ROM accessible via a communications bridge and capable of storing boot data accessible from a host system, Col. 3, Lines 12-25)*.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the boot memory accessible via a network bridge as taught by Walsh with the speech processing network as recited by Everhart to allow for an increase in ease of use by eliminating the need to configure the system upon power-up. Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network capable of retaining its previous configuration upon power-up, to obtain the invention as specified in Claim 5.

With respect to **Claim 6**, Walsh shows:

The speech processing board of claim 1, wherein said local communications bus is a PCI bus *(use of a PCI bus as a means of connecting DSP cards with a host processor (Col. 3, Lines 41-43)*.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the

use of a PCI bus with the speech processing network as recited by Everhart to provide for further device use in a wide variety of speech processing environments that require a PCI bus. Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network capable of communicating over a PCI bus, to obtain the invention as specified in Claim 6.

With respect to **Claims 7 and 8**, Walsh suggests:

The speech processing board of claim 6, wherein said PCI bus is a 64-bit, 133 MHz PCI bus.

The speech processing board of claim 6, wherein said PCI bus is a 64-bit, 66 MHz PCI bus. *(PCI bus as applied to Claim 6 in combination with the existence, well known to one skilled in the art of 64-bit, 133MHz and 64-bit, 66MHz PCI buses. Thus it would have been obvious to one skilled in the art, at the time of invention, to increase system compatibility by allowing for the option to choose between various PCI bus types, specifically those common values as recited in Claims 7 and 8.).*

With respect to **Claim 9**, Walsh discloses:

The speech processing board of claim 1, wherein said communications bridge comprises a PCI-to-PCI bridge having a PCI interface to said host system and an interface to an H.1.times.0 bus *(additional bus connecting network interface cards, connected to a host, Col. 2, Lines 57-58, to DSP units in the form of an H.110 bus, Col. 2, Lines 40-42).*

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine

the use of a H.110 bus as disclosed by Walsh with the speech processing network as recited by Everhart to provide for a greater degree of compatibility with the known protocols and hardware specifications mentioned by Walsh (Col. 2, Lines 42-48). Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a more compatible speech processing network, to obtain the invention as specified in Claim 9.

With respect to **Claim 10**, Walsh shows:

The speech processing board of claim 9, wherein said communications bridge further comprises a processing element for managing message communications between the speech processing board and said host system according to a messaging protocol provided by said host system *(communication bus connected to a host system, for interfacing with various protocol specifications, Fig 2, Element 122, Col. 2, Lines 42-48)*.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the host system capable of being connected to various messaging protocol devices as disclosed by Walsh with the speech processing network as recited by Everhart to provide for a greater degree of compatibility with protocols and hardware specifications (Col. 2, Lines 42-48). Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a more compatible speech processing network, to obtain the invention as specified in Claim 10.

With respect to **Claim 14**, Walsh discloses:

The speech processing board of claim 12, further comprising an ethernet switch coupled to said communications bridge, said ethernet switch configured to transmit and receive

packetized audio information to and from an external network *(switching unit (Fig. 1, Element 104) connected to the communication ports of the network interface cards that allows the host to communicate with further DSP units (Col. 2-3, Lines 63-67, 1-6).*

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the switching unit as disclosed by Walsh with the speech processing network as recited by Everhart to provide an the option of interfacing with multiple DSP instances. Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a more compatible and configurable speech processing network, to obtain the invention as specified in Claim 14.

With respect to **Claim 15**, Walsh recites:

The speech processing board of claim 1, wherein said host system is a CT media services system (host processor of a telephone conference system containing a conference control system implemented in the form of a computer-based application, Col. 3, Lines 43-45).

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the ability of implementing conference communications via a computer as disclosed by Walsh with the speech processing network as recited by Everhart to create a speech processing network able to be implemented through a computer application thus producing an easily accessible user interface and the ability for use in a computer telephony environment.

Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network with a user interface and with the ability to communicate in a computer telephony application, to obtain the invention as specified in Claim 15.

With respect to **Claim 17:**

Everhart teaches a method of controlling a speech recognition system featuring multiple speech processors containing grammar and language rules as addressed under Claims 1-4, 12, and 13. Everhart in view of Walsh teaches the use of a PCI bus and a CT system for use in a speech processing application as applied to Claims 4-10, 14, 15, and 19-21, above. Everhart does not teach:

- A PCI-to-PCI bridge, CT host system, drive controller, and boot memory as recited in Claim 17

With respect to **Claim 17**, Walsh, second embodiment discloses:

A speech processing board comprising: multiple processor modules in the speech processing board; a PCI-to-PCI bridge interfacing said local PCI interface to a host CT system), said bridge comprising interfaces to an H.1.times.0 bus and a PCI bus; a local PCI interface linking each said processor module to said PCI-to-PCI bridge *(cPCI bridge, H.110 bus, Col. 3, Lines 4-34)*;

A fixed storage communicatively linked to said PCI-to-PCI bridge and accessible by said processor modules through a drive controller *(host and DSP resource accessible memory, Col. 3, Lines 15-25)*;

A language model cache communicatively linked to said bridge (language model as taught by Everhart *(modeling block within the speech processor that applies a language model to an input speech signal, Col. 5, Lines 8-11)* ; and

A boot memory communicatively linked to said bridge, said boot memory storing initialization code *(boot memory, Col. 3, Lines 15-25)*.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the use of a PCI bridge with the speech processing network as recited by Everhart to provide for further device use in a wide variety of speech processing environments that require a PCI interconnectivity. Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network capable of communicating over a PCI bus, to obtain the invention as specified in Claim 17.

With respect to **Claim 19**, Walsh shows:

The speech processing method of claim 18, further comprising the steps of: collecting speech task results from said selected ones of said multiple processor modules; and, forwarding said collected speech task results to a host computer telephony (CT) system over a host communications bus *(host processor of a telephone conference system connected to various DSPs via a communication bus, containing a conference control system implemented in the form of a computer-based application, Col. 3, Lines 41-45)*.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would

have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the ability of implementing conference communications via a computer as disclosed by Walsh with the speech processing network as recited by Everhart to create a speech processing network able to be implemented through a computer application thus producing an easily accessible user interface and the ability for use in a computer telephony environment containing multiple speech processors. Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network with a user interface and the ability of host communications with multiple DSPs in a computer telephony application, to obtain the invention as specified in Claim 19.

With respect to **Claim 20**, Walsh discloses a computer readable storage, not taught by Everhart and used for implementing the method disclosed by Everhart in Claim 13:

A machine readable storage having stored thereon a computer program *(host computer with random access memory communicating with multiple computer terminals, Col. 2, Lines 28-35. Inherent for a computer to perform an operation using a program stored in a RAM)* for processing speech, said computer program having a plurality of code sections executable by a machine for causing the machine to perform the steps recited by Everhart in Claim 13.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine system implementation on a machine readable medium as disclosed by Walsh with the speech processing network as recited by Everhart to create a speech communication system capable of functioning on a computer offering furthered user control and options. Therefore, it would have

been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network capable of being implemented on a computer, offering further user control and a more configurable system, to obtain the invention as specified in Claim 20.

With respect to **Claim 21**, Walsh discloses:

The machine readable storage of claim 20, further comprising the steps of: collecting speech task results from said selected ones of said multiple processor modules; and, forwarding said collected speech task results to a host computer telephony (CT) system over a host communications bus *(host processor of a telephone conference system connected to various DSPs via a communication bus, containing a conference control system implemented in the form of a computer-based application, Col. 3, Lines 41-45)*.

Everhart and Walsh are analogous art because they are from a similar field of endeavor in speech processing in a network featuring multiple speech processing modules. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the ability of implementing conference communications via a computer as disclosed by Walsh with the speech processing network as recited by Everhart to create a speech processing network able to be implemented through a computer application thus producing an easily accessible user interface and the ability for use in a computer telephony environment containing multiple speech processors. Therefore, it would have been obvious to combine Walsh with Everhart for the benefit of obtaining a speech processing network with a user interface and the ability of host communications with multiple DSPs in a computer telephony application, to obtain the invention as specified in Claim 21.

7. **Claims 11 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Everhart as applied to Claim 1, above, in view of U.S. Patent: 6,535,513 to Kao et al.

Everhart teaches the apparatus and method for controlling a speech recognition system as applied to Claims 1-4, 12, 13, and 18, but does not teach:

- A communications bridge implemented in an FPGA as recited in Claim 11
- A host system in the form of a VoIP gateway/endpoint as recited in Claim 16

With respect to **Claim 11**, Kao discloses:

The speech processing board of claim 1, wherein said communications bridge is implemented in a field programmable gate array (FPGA) *(data switching apparatus and method utilizing an FPGA as a bus controller, Col. 10, Lines 64-65)*.

Everhart and Kao are analogous art because they are from a similar field of endeavor in data routing in a communications network. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the switching apparatus and method containing an FPGA bus controller with the method and apparatus for controlling a speech recognition system consisting of multiple speech processors, a selector capable of routing specific audio signals to their corresponding speech engines, a communication bus, and a voice control system based upon grammar and language models as taught by Everhart to implement a speech recognition control system with a the added ability of configuring bus settings through the use of an FPGA. Therefore, it would have been obvious to combine Kao with Everhart for the benefit of obtaining a multi-compatible bus configurable speech recognition control system, to obtain the invention as specified in Claim 11.

With respect to **Claim 16**, Kao recites:

The speech processing board of claim 1, wherein said host system is a voice over IP (VoIP) gateway/endpoint *(switching apparatus capable of being used in a VoIP environment, Col. 4, Table 1)*.

Everhart and Kao are analogous art because they are from a similar field of endeavor in data routing in a communications network. Thus, it would have been obvious to a person of ordinary skill in the art, at the time of invention, to combine the switching apparatus for use over a VoIP network, with the method and apparatus for controlling a speech recognition system consisting of multiple speech processors, a selector capable of routing specific audio signals to their corresponding speech engines, a communication bus, and a voice control system based upon grammar and language models as taught by Everhart to implement a speech recognition control system with a the added ability of use in a practical VoIP network environment. Therefore, it would have been obvious to combine Kao with Everhart for the benefit of obtaining a configurable speech recognition control system for use in a practical VoIP environment, to obtain the invention as specified in Claim 16.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- U.S. Patent: 6,532,444 to Weber- teaches a speech recognition network computer user interface featuring a natural language processor, a language and grammar

database stored in a memory device, and a CPU with a speech recognition processor.

- U.S. Patent: 5,890,115 to Cole- teaches a speech synthesis apparatus containing a speech processor, CPU, PCI bus interface, audio data controller, and a speech reference database.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James S. Wozniak whose telephone number is (703) 305-8669. The examiner can normally be reached on Mondays-Fridays, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached at (703) 306-3011. The fax/phone number for the Technology Center 2600 where this application is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 306-0377.

James S. Wozniak
11/12/2003

TALIVALDIS IVARS SMITS
PRIMARY EXAMINER